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(54) 【発明の名称】 端子の取付位置を変える事ができるバッテリー

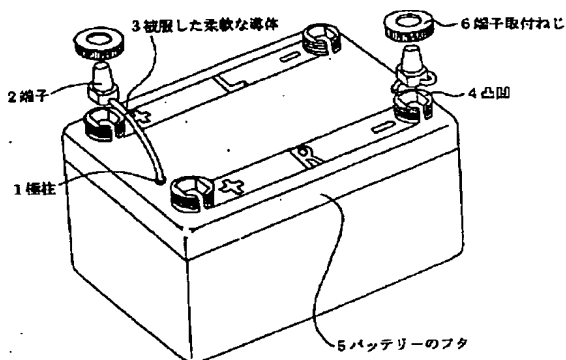
(57) 【要約】

【課題】本発明はJ I Sの形式名称によりRタイプとLタイプの2種類のバッテリーがあるが、この両タイプに対応できるバッテリーを提供する。

【解決手段】(イ) バッテリーの極柱(1)と端子(2)を接続するための被服した柔軟な導体(3)を設ける。

(ロ) 端子(2)を固定できるように凸凹(4)をバッテリーのフタの任意の位置に必要な数設ける。

(ハ) 端子を凸凹に固定する端子取付ねじ(6)を設ける。



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## 【特許請求の範囲】

【請求項1】(イ) バッテリーの極柱(1)と端子(2)を接続するための被服した柔軟な導体(3)を設ける。

(ロ) 端子(2)を固定するための凸凹(4)をバッテリーのフタ(5)の任意の位置に必要な数設ける。

(ハ) 端子を凸凹に固定する端子取付ねじ(6)を設ける。

以上の構成によりなる端子の取付位置を変える事ができるバッテリー

## 【発明の詳細な説明】

## 【0001】

【発明の属する技術分野】この発明は、端子を最適な位置に動かすことができるようにしたもので、それを固定することもできるバッテリーに関するものである。

## 【0002】

【従来の技術】従来、バッテリーは幅、高さ、長さ、性能ランクによりたくさんのタイプがある。同じ幅、同じ高さ、同じ長さ、同じ性能ランクのものでも、端子の位置に関して、JISの形式名称によりRタイプとLタイプが決められているものが多い。つまり同じ寸法同じ性能ランクでも2種類あることが多い。このため、バッテリーを扱うものにとって、種類雑多なバッテリーの故障に対して、常にこれらに対処する必要があるので、相当の種類の多数のバッテリーの在庫を用意しておかなければならなかった。

## 【0003】

【発明が解決しようとする課題】本発明は、その欠点をなくすために、同じ寸法同じ性能ランクのバッテリーであればRタイプとLタイプの両方に対応できるバッテリーを課題として開発したものである。

## 【0004】

【課題を解決するための手段】極柱(1)と端子(2)の間を被覆した柔軟な導体(3)で結ぶことで自由に端子の位置を動かす事ができる。またこの状態では振動などで端子(2)が動き危険な場合もあるので端子(2)を固定できるように凸凹(4)をバッテリーのフタ(5)の任意の位置に必要な数設ける。端子取付ねじ(6)で端子(2)を凸凹(4)に固定する。本発明は、以上のような構成よりなる端子の取付位置を変えることができるバッテリーである。

## 【0005】

【発明の実施の形態】以下、本発明の実施の形態について説明する。バッテリーの端子は+-の2種類があり電

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槽内より電力を取り出すために極柱(1)がバッテリーのフタ(5)を貫通して端子(3)として外部にとびだしている。この極柱(1)と端子(2)の間を被覆した銅線や銅などの柔軟な導体(3)で結ぶことで自由に任意の位置に端子を動かす事ができる。またこの状態では振動などで端子(2)が動き危険な場合もあるので端子(2)を固定できるように凸凹(4)をバッテリーのフタ(5)の任意の位置に必要な数設ける。また凸凹

(4)に端子(2)を確実に固定するように端子取付ねじ(6)で取付ける。本発明は以上のような構成であるから図2及び図3に示すように端子の取付け位置を変える事で、RタイプであれLタイプであれ1種類のバッテリーで対応することができる。またRタイプやLタイプ以外で新たに端子の取付位置が規格されてもその位置に凸凹(4)を設けることで対応できる。

## 【0006】

【発明の効果】本発明は以上のような構成であるから今までRタイプとLタイプの2個の在庫が必要であるところを1個用意しておけばよいのでRタイプとLタイプのあるバッテリーの在庫は半分でもよくなる。また商品の回転率がよくなるので、長期在庫も少なくなり自己放電による品質低下や不良品の発生も抑えられる。以上の観点からこの方式を採用することでメーカーの在庫管理、販売店の在庫管理が改善され同業他社との販売競争にも非常に有利になると思われるし、自己放電の少ない強力なバッテリーを末端の消費者に提供しやすくなる点でサービスや信頼性の向上にもつながる。なお凸凹(4)及び端子取付ねじ(6)の代わりに、図4に示すようなはずれ止めのついた凸凹(7)に端子を固定する方法で実施してもよい。

## 【図面の簡単な説明】

【図1】本発明の斜視図である。

【図2】本発明のRタイプの実施例の斜視図である。

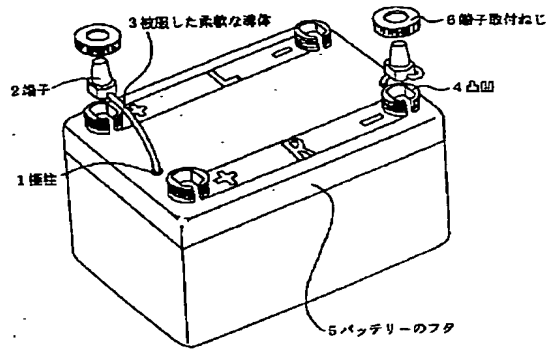
【図3】本発明のLタイプの実施例の斜視図である。

【図4】はずれ止めのついた凸凹の斜視図である。

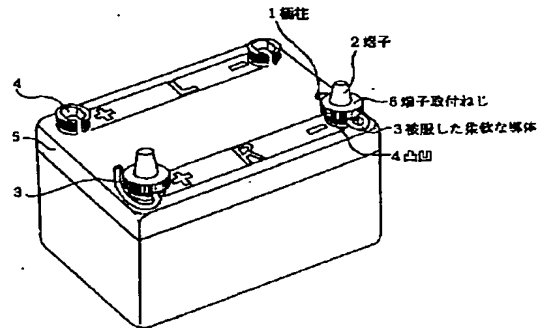
## 【符号の説明】

- 1 極柱
- 2 端子
- 3 被服した柔軟な導体
- 4 凸凹
- 5 バッテリーのフタ
- 6 端子取付ねじ
- 7 はずれ止めのついた凸凹

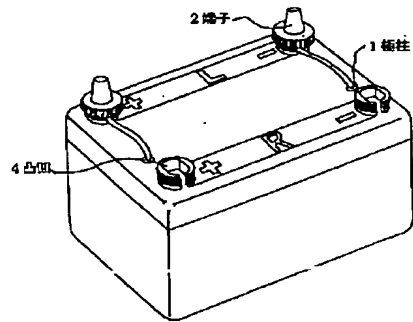
【図1】



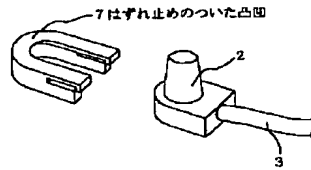
【図2】



【図3】



【図4】



## PATENT ABSTRACTS OF JAPAN

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(21)Application number : 08-278528

(71)Applicant : YAMAFUKU:KK

(22)Date of filing : 11.09.1996

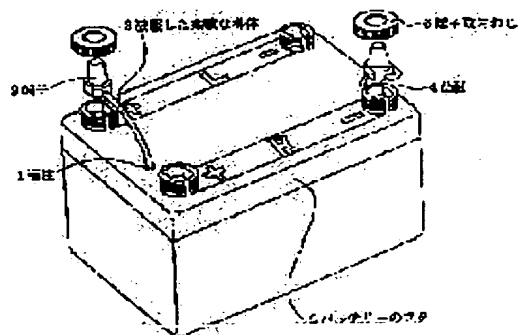
(72)Inventor : YAMASHITA HIROYASU

## (54) BATTERY WITH TERMINAL FITTING POSITION CHANGEABLE

## (57)Abstract:

PROBLEM TO BE SOLVED: To cope with both R type and L type so as to reduce the stock of batteries by coupling an electrode rod and a terminal with a coated flexible conductor, and providing recesses and protrusions for fixing the terminal on a battery lid.

SOLUTION: A electrode rod 1 passes through the lid 5 of a battery so as to stick outward as a terminal 2. The electrode pole 1 and the terminal 2 are coupled with a coated flexible conductor so that the terminal position is freely movable. This state, causes vibration to move the terminal 2 so dangerously that, a required number of recesses and protrusions 4 are provided on arbitrary positions of the battery lid 5 for fixing the terminal 2. The terminal 2 is fitted by a terminal fitting screw 6 for surely fixing the same to the recesses and protrusions 3. Thereby, the fitting position of the terminal 2 can be freely changed, so that one kind battery can cope with either an R type or an L type.



## LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

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CLAIMS

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[Claim(s)]

[Claim 1] (b) Prepare the flexible conductor (3) which carried out clothing for connecting the pole pillar (1) and terminal (2) of a dc-battery.

(b) It is \*\*\*\*\* required for the location of the arbitration of the free wheel plate (5) of a dc-battery about the unevenness (4) for fixing a terminal (2).

(c) Prepare the terminal mounting screw (6) which fixes a terminal unevenly.

The dc-battery into which the attaching position of the terminal which becomes by the above configuration is changeable

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention is the thing which enabled it to move a terminal to the optimal location, and relates to the dc-battery which can also fix it.

[0002]

[Description of the Prior Art] Conventionally, a dc-battery has much type by width of face, height, die length, and the engine-performance rank. The thing of the same width of face, the same height, the same die length, and the same engine-performance rank also has many R type and L type are decided to be by the formal name of JIS about the location of a terminal. that is, the same dimension — there are also two kinds of same engine-performance ranks in many cases. for this reason — for the thing handling a dc-battery — various — since these always needed to be coped with to failure of a miscellaneous dc-battery, the inventory of many dc-batteries of a considerable class had to be prepared.

[0003]

[Problem(s) to be Solved by the Invention] the dimension same in order that this invention may abolish the fault — if it is the dc-battery of the same engine-performance rank, the dc-battery which can be equivalent to both R type and L type will be developed as a technical problem.

[0004]

[Means for Solving the Problem] The location of a terminal can be freely moved by connecting with the flexible conductor (3) which covered between a pole pillar (1) and terminals (2). Moreover, it is \*\*\*\*\* required for the location of the arbitration of the free wheel plate (5) of a dc-battery about unevenness (4) so that a terminal (2) runs by vibration etc., and a terminal (2) can be fixed in this condition, since it may be dangerous. A terminal (2) is fixed to unevenness (4) by the terminal mounting screw (6). This invention is a dc-battery into which the attaching position of the terminal which consists of the above configurations is changeable.

[0005]

[Embodiment of the Invention] Hereafter, the gestait of operation of this invention is explained. The pole pillar (1) penetrated the free wheel plate (5) of a dc-battery, and the terminal of a dc-battery is sticking out outside as a terminal (3), in order for there to be two kinds of + and to take out power from the inside of a battery case. A terminal can be freely moved to the location of arbitration by connecting with flexible conductors (3), such as copper wire which covered between this pole pillar (1) and terminals (2), and copper. Moreover, it is \*\*\*\*\* required for the location of the arbitration of the free wheel plate (5) of a dc-battery about unevenness (4) so that a terminal (2) runs by vibration etc., and a terminal (2) can be fixed in this condition, since it may be dangerous. Moreover, it attaches by the terminal mounting screw (6) so that a terminal (2) may certainly be fixed to unevenness (4). changing the fitting location of a terminal, as they are shown in drawing 2 and drawing 3, since this inventions are the above configurations — it is — R type — be — L type — be — it can respond with one kind of dc-battery. Moreover, even if specification of the attaching position of a terminal is newly carried out except R type or L type, it can respond by preparing irregularity (4) in the location.

[0006]

[Effect of the Invention] Since this inventions are the above configurations and they should just prepare one place [ need / until now / two pieces / in stock, R type and L type, ], an inventory of a dc-battery with R type and L type may come for one half to be sufficient. Moreover, since the turnover of goods becomes good, a long-term inventory also decreases and generating of the debasement by self-discharge and a defective is also suppressed. A manufacturer's stock control and the stock control of a dealer are improved by adopting this method from the above viewpoint, it is thought that it becomes very advantageous also to the selling competition with the other company in the same trade, and it leads also to service or improvement in dependability in that it becomes easy to provide the consumer of an end with a powerful dc-battery with little self-discharge. In addition, you may carry out by the approach of fixing a terminal to the unevenness (7) which the blank stop as shown in drawing 4 attached to the change of unevenness (4) and a terminal mounting screw (6).

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TECHNICAL FIELD

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[Field of the Invention] This invention is the thing which enabled it to move a terminal to the optimal location, and relates to the dc-battery which can also fix it.

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PRIOR ART

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EFFECT OF THE INVENTION

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TECHNICAL PROBLEM

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MEANS

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[Means for Solving the Problem] The location of a terminal can be freely moved by connecting with the flexible conductor (3) which covered between a pole pillar (1) and terminals (2). Moreover, it is \*\*\*\*\* required for the location of the arbitration of the free wheel plate (5) of a dc-battery about unevenness (4) so that a terminal (2) runs by vibration etc., and a terminal (2) can be fixed in this condition, since it may be dangerous. A terminal (2) is fixed to unevenness (4) by the terminal mounting screw (6). This invention is a dc-battery into which the attaching position of the terminal which consists of the above configurations is changeable.

[0005]

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DESCRIPTION OF DRAWINGS

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[Brief Description of the Drawings]

[Drawing 1] It is the perspective view of this invention.

[Drawing 2] It is the perspective view of the R type example of this invention.

[Drawing 3] It is the perspective view of the L type example of this invention.

[Drawing 4] It is the uneven perspective view which the blank stop attached.

[Description of Notations]

- 1 Pole Pillar
- 2 Terminal
- 3 Flexible Conductor Which Carried Out Clothing
- 4 Unevenness
- 5 Free Wheel Plate of Dc-battery
- 6 Terminal Mounting Screw
- 7 Unevenness Which Blank Stop Attached

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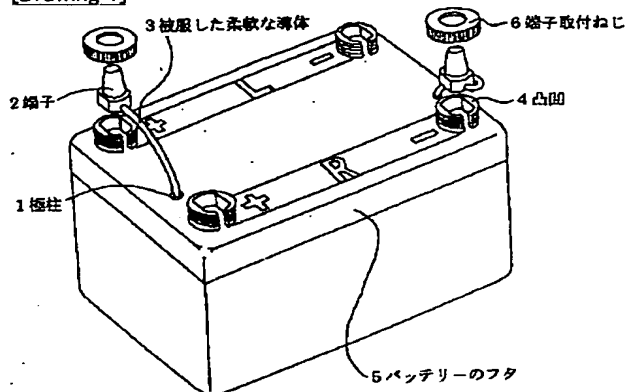
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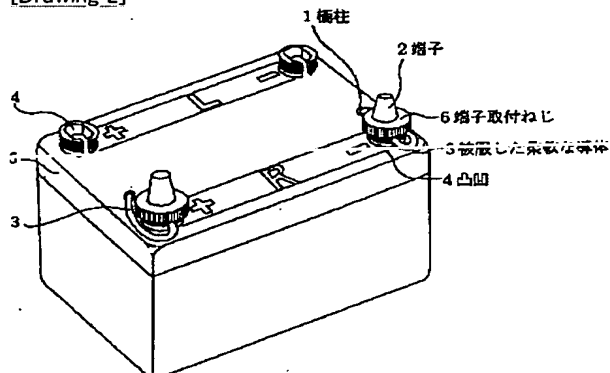
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## DRAWINGS

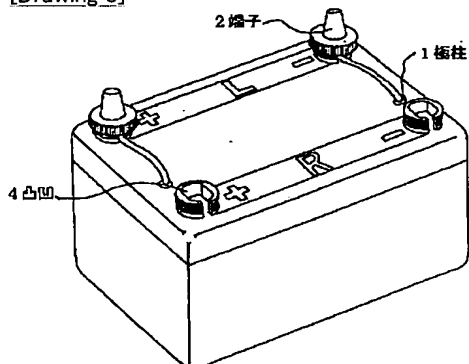
[Drawing 1]



[Drawing 2]



[Drawing 3]



[Drawing 4]

